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Evidence based policymaking

Research must inform health policy as well as medical care

That politics is driven more by values than facts is not open to dispute. But at a time when ministers are arguing that medicine should be evidence based,[1] is it not reasonable to suggest that this should also apply to health policy? If doctors are expected to base their decisions on the findings of research surely politicians should do the same. Although individual patients may be at less risk from uninformed policymaking than from medicine that ignores available evidence, the dangers for the community as a whole are substantially higher. The impact of policies that are poorly designed and untested may be disastrous—witness the recent failures in mental health services. As such the case for evidence based policymaking is difficult to refute.

This argument applies to politicians of all parties, not simply to those who currently hold office. Certainly, the failure of the government to evaluate the effects of its health care reforms properly at the outset will go down in the history of the NHS as an omission of the highest order, but the record of the Labour party when in government is not entirely creditable either. Rather than dwell on past mistakes, it may be more constructive to consider how future politicians may be better informed by evidence. There is a role here for both the government and independent agencies.

Let us begin with the government. The establishment of the NHS research and development programme has at last focused attention on the importance of evaluation. The programme is also gradually giving credence to the notion that the NHS should become based on knowledge. Both through the national initiatives—such as the UK Cochrane Centre and the NHS Centre for Reviews and Dissemination—and the regional programmes that have been established, there is now a firm foundation on which to build. In addition, the Department of Health's centrally commissioned research programme supports both research centres and individual projects.

The need now is to ensure that the priority attached to research and development is translated into a culture of evidence based policymaking. In this context, several recent developments give cause for hope. As an example, the government's green paper on dentistry has proposed introduction of a purchaser-provider system in the general dental services. Rather than proposing that this should be implemented across the whole NHS, however, the green paper suggests that several pilot projects should be established and that experience in these should be evaluated.

A similar commitment seems to be emerging in relation to the government's plans for the future of purchasing. These plans create a more strategic role for health authorities coupled with an extension of general practitioner fundholding. This extension of fundholding includes provision for around 20 experiments in "total purchasing," building on experience in Bromsgrove and elsewhere, with an intention that these experiments should be properly evaluated. Other candidates for evaluation, which the current ministerial team might consider, include the transaction costs associated with the health care market, the effect of the shift of services into primary care, and the impact of the patient's charter.

The difficulty with some of these topics is of course that ministers may avoid commissioning research for fear that the results will be politically inconvenient. For this reason, there needs to be a continuing independent source of ideas and funding to support research and analysis relevant to policy. One of the features of the community that influences health policy is the large number of non-government organisations that it includes. Although many of these organisations represent specific professional or sectional interests, others occupy a position of independence from which they can both analyse government policies and propose policies of their own or fund others to carry out such functions. Of particular importance in this respect are organisations like the King's Fund, the Nuffield Provincial Hospitals Trust, and similar charitable foundations. These agencies' role in illuminating the dark corners of the debate over health policy has often been creditable. This applies particularly to the initiative of the King's Fund in establishing a research programme to evaluate the NHS reforms in an effort to fill the gap left by the government. The results of this programme of research, carried out by research teams based in universities around Britain, offer the most systematic account yet of the impact of the reforms.[2]

Where is the institute?

Much less successful have been attempts to establish and maintain an institute for health policy analysis. While there is much to be said for a strategy of supporting research teams in a range of units through both government funds and charitable foundations, there is also a strong argument for the creation of a critical mass of expertise, bringing together skills in several disciplines in one centre. The function of such a centre would be less to carry out research than to synthesise existing data and to inform debate on policy. Put another way,

there needs to be an effective mechanism for transferring the results of reseach into policy. This task of informing the development of policy is complementary to that of carrying out research relevant to policy and is an essential part of a strategy of promoting evidence based policymaking.

The charitable foundations are uniquely placed not only to make this happen but to guarantee the independence of such a centre through their resources. The scale of the operation almost certainly demands collaboration between the foundations to provide the necessary infrastructure and credibility. At a time of almost unprecedented interest in health policy, the establishment of a national centre for analysing health policy calls for serious and urgent consideration. The centre would not supplant existing institutions but would work alongside them to provide a bridge between research and policy. It would be essential for the centre to build on the strengths of established programmes and to add value to these through its activities.

One way of doing this would be to set up a small group of experienced analysts in the centre, with additional input being provided by staff from existing units. This "hub and spoke" model would have the virtue of combining a central focus with a network of researchers and analysts around Britian. It would also have the virtue of addressing policy issues at multiple levels in the health sector and not concentrating solely on the national level.

Such a centre would be expected to operate across the political spectrum. Opposition parties should not be exempt from the requirement to base their policies on evidence. Margaret Beckett, Labour's shadow health minister, has inherited the bare bones of an alternative health policy from David Blunkett and will no doubt be taking this forward during the coming months. As she does so she will, hopefully, draw on published research and the results emerging from continuing studies on health policy. Although opposition parties do not enjoy the same access to the civil service's advice as ministers, there is no shortage of skill available from non-governmental agencies and research centres. It would be a missed opportunity if this advice was ignored, even if some researchers will need to be enticed out of their ivory towers to participate on the debate on policy.

One way of turning these aspirations into reality would be to create a culture in which new policies—whatever their provenance—were accompanied by a statement of the evidence that was consulted in their preparation. This might not completely prevent the promulgation of oddball ideas, but it would at least give politicians pause for thought. Evidence based policymaking needs to go hand in hand with evidence based medicine in the shaping of an NHS fit for the future.

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2 Robinson R, LeGrand J, eds. *Evaluating the NHS reforms*. London: King's Fund, 1994.

Acute dissection of the thoracic aorta

Transoesophageal echocardiography is the investigation of choice

Untreated patients with acute dissection of the thoracic aorta have a mortality of more than 1% per hour.[1] Lowering the systolic blood pressure reduces the risk of extension, so every patient who might have a dissection should receive antihypertensive treatment while waiting for a definitive diagnosis by imaging. Such patients should be treated in a high dependency area, where the electrocardiogram can be monitored continuously. The systolic blood pressure should be kept below 110 mm Hg by an infusion of labetalol. This is the drug of choice as it causes a rapid reduction in blood pressure that can be controlled by altering the rate of infusion.

Which diagnostic imaging technique should be used? It should provide a fast and accurate diagnosis and identify damage to the ascending aorta. Ideally, it should also show the site of the intimal tear, the distal extent of any dissection, and the presence of associated complications including tamponade, aortic regurgitation, and the involvement of the origins of the coronary arteries and aortic branches.[2]

Aortography has long been the standard investigation, but it has disadvantages. These include delay while the angiography team is assembled, the risk of aortic rupture during manipulation of the catheter, and the nephrotoxicity of radiological contrast media in patients whose renal function may already be compromised. Echocardiography, computed tomography, and magnetic resonance imaging all have advantages over aortography.[2,3]

Transthoracic or suprasternal echocardiography may show a dissection flap in the ascending aorta or arch. This sign is highly specific, and imaging can be performed quickly and easily in most patients.[4] Unfortunately, however, the sensitivity of transthoracic echocardiography is limited to about 60%, so that negative findings have to be followed by further investigation to exclude dissection.

Computed tomography enhanced with a radiological contrast medium, available in many district hospitals, is minimally invasive and its sensitivity and specificity at least equal those of aortography.[4] The diagnostic accuracy of ultrafast and spinal computed tomography is even better, but these techniques are not yet widely available. Magnetic resonance imaging provides excellent images of the whole aorta.[5] Cardiac gated and "cine" techniques give information on luminal blood flow and valvar regurgitation—at the expense of a prolonged scanning time.[2]

Both computed tomography and magnetic resonance imaging require the transfer of the patient to a scanner. Access to the patient is restricted during scanning, and for magnetic resonance imaging a further complication is the need to use non-ferrous and shielded monitoring equipment. At present neither technique allows real time scanning, and good cooperation is needed from the patient for high quality images. All this means that, despite their excellent diagnostic capabilities, computed tomography and magnetic resonance